A

PLAIN and SUCCINCT

DISCOURSE

ON

CONVULSIONS

In General;

But more particularly in

CHILDREN.

In which the

CAUSES and CURES of them are methodically and fully Explain'd.

AND

A True and Succesful SPECIFICK, against that *Direful Disease*, Communicated to the Publick.

——levare functum,
Pauperem laboribus,
Vocatus & non vocatus audit. Horat.

LONDON:

Printed for, and Sold by *T. Woodward* at the *Half-Moon* against St. *Dunstan's* Church in *Fleetstreet*, *G. Strahan* against the *Royal-Exchange* in *Cornhill*, and *J. Peypit* in *Skinners-Row* in *Dublin*, 1721. Price 6 *d.*

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MVSEVM BRITANNICVM

———Iterum Fundam,
Parque cum Tibia,
Versiculos & mea carmina pando. Horat.

LONDON:

Printed for; and Sold by T. [illegible] at the Rose and Crown against St. Dunstan's Church in [illegible], [illegible] Stream against the Royal-Exchange in [illegible], and J. Pippard in Dame-Lane in Dublin, 1741. Price 6 d.

THE PREFACE.

WHEN I consider the Annual amount of Deaths, from the Havock this Disease makes in Children, the Impossibility of Regulating the Mistake Daily committed; and consequently, the certainty of the Number of Burials that will still continue, by Reason of the Mis-

management of bad Nurſes: I think it my Duty to commmnicate to the World, a Medicine I have found, Safe and Effectual in the Relief of all Species of Convulſions, *whether in grown Perſons or Children; it is all that a well-meaning Perſon can do, and what a Man of Pity will not neglect, to Cure what cannot be prevented, or to prevent, when we fore-ſee Danger. That* Sailor *who reaches me a Plank to ſave my Life, after a Shipwreck, deſerves from me a Monument for his Kindneſs; and he who Extinguiſhes the Flames whilſt I am ſurrounded by them, and am in the midſt of them, deſerves I ſhould ſpin my Bowels out in his Service.* The

The Bills of Mortality bear me Witness, that near 7000 Die Yearly of this Distemper; it is Reasonable to believe, that double that Number are seiz'd with them, who escape with some Difficulty; and how many are there who do escape, that are either stupid for ever after, or, at least, who become of so sickly a Constitution, that they are never able, in the whole Course of their Lives afterwards, to go thro' the Fatigues of Business? This it was that determin'd my Choice, in the Writing this little Account of the Nature of this Disease, and to communicate my Power and good Will of serving the Publick in an Affair of so great Moment.

ment. I make no Queſtion, but we ſhall both find our Account in it; for, as I write nothing but what I have founded upon Experience, ſo I make no Scruple to depend upon the Candid Reception of a Succeſsful Remedy.

That the following Treatiſe may be rendered more Uſeful, I ſhall ſubjoin the Signs of a Child in Health; *the Signs which* fore-tell Convulſions, *and the Signs of* Convulſion Fits.

The Signs of a Child in Health.

If the Child's Belly is very open, if it ſleeps quietly, if it be chearful, if its Excrements are Yellow, if its Appetite be good, if the Child's Co-

lour

lour is lively, and if his Fleſh be firm, the Child is in perfect Health, and you ought not to give it Drugs *upon any perſwaſion whatever.*

Signs which fore-tell *Convulſions.*

If the Child is griped, and if its Belly is not open, but it is Coſtive, or its Stools turn Green; *and moreover if it ſleeps little, or ſtartles or trembles, toſſes its Limbs about, graſps its Fingers, its Eye-Lids be twitched, its Eyes turn round, and it gapes and yawns often*; Convulſions *will ſoon follow, and it is high time to begin to uſe the* Specifick, *in order to prevent them.*

Signs

Signs of *Convulsion* Fits.

When Children *are in a Fit, their Eyes are fixed, their Hands grasp'd, they don't breathe, their Lips and Nails look bluish, and they have neither Sense nor Motion left.*

I shall add no more than to desire the Envious to suspend their Judgment, till they see the Consequences. *Mean while I am the Publick's Servant.*

A

PLAIN and SUCCINCT DISCOURSE, &c.

ALTHO' it cannot be deny'd that it is neceſſary, in order to have a clear Notion of any Diſeaſe, to define, or at leaſt, to deſcribe the Malady; yet there are ſome Things ſo well known by the common Light of Nature, that a Diſinition makes them more Obſcure. Amongſt theſe, *Motion* does not offer, itſelf, laſt to our View, ſince how much the more Evident it is, that all Things are moved in various Manners, with ſo much the greater Difficulties is this Doctrine encumbred by ſuch, as endeavour to give in Reaſons, on the minuteſt Circumſtances of *Motion*; do not proportion

Art to the Rules of Nature, but Nature to the Rules of Art. From hence it was, that the Ingenious Figment of *ſubtile Matter* and *hamoſe Particles* took their Origin. Hence was it, that the *Interior Motor* was deny'd to Brutes againſt all common Senſe, That *Senſe* and *Motion* was refuſed them, contrary to Ocular Demonſtration, and that *Traction* began to be exploded in *Reſpiration* and *Suction* againſt daily Experience: Not to ſay what has been Broach'd of late Years on *Acid* and *Alcaly*, *Fermentation*, and many *Hypotheſes* of a like Nature, more to ſhew the Force of Invention, than to explain the true Nature of *Motion*.

I WILL not be Prolix in the Rehearſal or Refutation of theſe Notions, eſpecially ſince it is evident, that Falſities have been the Foundation of many of them. I ſhall give in my Sentiments in few Words, in a plain and intelligible Method, without Pomp, and yet I hope without Incongruity.

I THINK all the World will agree with me, that *Extenſion* and *Motion* are very evident in *Bodies*; *Extenſion* is eſſential to *Matter*, which conſider'd apart, or in itſelf, is *Extended* and *Paſſive*: But I think that *Motion* does not ſo much conſiſt in the bare change of Situation and Place, as in *Action*; becauſe as a Body in *Motion* is not moved from

from itſelf, but from ſome other: It is a neceſſary Conſequence, that in every *Motion* there is a *Paſſiveneſs*, which ſuppoſes ſome *Action* to have preceeded. This *Action* cannot depend upon *ſubtile Matter*, becauſe the more *ſubtile* is *Matter*, the more liable it is to be moved, than to Act; wherefore I judge *Action* to proceed from ſome hypoſtatical Cauſe, rather than this *Matter*, and from ſomewhat diſtinct from it.

WHEN I conſider a Humane Body, I find in it *Matter* and *Spirit*; this moves, extends, divides, and penetrates *Matter*; this produces Heat, and in a Word, is the ſole *Agent*; mean while *Matter* is moved and extended, is cold, and is acted upon by the Spirit alone; and as all *Action* in Creatures depends upon this Cauſe, ſo does all *Motion* alſo.

I WILL not enquire too nicely at preſent into the manner how *Spirit* acts upon *Matter*, nor explain too tediouſly the many Kinds of *Motion*. What I have ſaid will ſuffice to give the Readers a general *Idea* of *Motion*, and that is as much as I deſign'd to premiſe to this ſmall Diſcourſe on *Convulſions*; which I have done, leſt I ſhould have had the Trouble to repeat too often, what this Notion will inculcate at one view.

I MIGHT ſubjoin the particular Manner how *Muſcular Motion* is performed, and the Powers of them; but I fear my Reader will be diſtaſted with the Difficulty of the Proofs, and therefore I ſhall be as Short and Plain as I poſſibly can on this Particular.

AS to the Manner how Muſcles are mov'd, I muſt deſire my Readers to obſerve the Structure of a Muſcle, the Veſſels inſerted into each, and the Change made in it, when it is in Motion from its natural Poſition.

A MUSCLE is a Bundle of ſmall hollow Tubes, ty'd together by tranſverſe Ligaments, which has an *Artery*, a *Vein*, a *Nerve* and *Lymphatick* inſerted into it; and which ſwells in its Middle upon Motion. The *Artery* and the *Nerve* carry the Fluid into the Tubes, and ſwell the Muſcle, whilſt the *Vein* and *Lymphatick* reconvey the Juices, and then the Muſcle ſettles into its ordinary ſhape. So long as we pleaſe, the Juices don't return ſo as to flag it, becauſe the Inflation compreſſes the *Vein* and *Lymphatick*, and their Orifices being ſhut, cannot return what they receive not. And as a *Palſey* enſues from the Obſtruction of an *Artery*, as well as from that of a *Nerve*, neither the arterial Blood, nor the nervous Fluid (of what Nature ſoever it is) alone, will

will make a Muſcle move, but both muſt contribute to put a Muſcle into Motion. What it is that determines the Blood and Spirits to move in ſuch an individual Tract, and no other than the *Will* commands them, is a Queſtion not eaſy to be explain'd: *Lucretius* makes no Difficulty to aſſert, That all Motion is perform'd by Contact, and whatever touches is a Body; Heathens had no ſublime Notions, they even believed their Deities were Corporeal. But we are taught by *Revelation*, that our Souls are Immortal and Incorporeal, and act by a Proximity, or what you pleaſe to call it, without corporeal Contact; and as God, who is a pure Spirit, made this World by his *Fiat*, ſo does the Soul of Man act upon our Corporeal Spirits, by an undiſcoverable Commerce between them: And as a Veſicle to which a Weight is ty'd, lifts this Weight up, ſo a bundle of Bladders or Tubes of equal ſize, and of the ſame ſhape, will lift up the Weight in height, in proportion to the Number of thoſe Tubes, or the length of them, becauſe the contraction of a Muſcle is proportionable to its length, and as this Motion is Inſtantaneous, it muſt depend upon a Cauſe that produces its Effect in an Inſtant, and we know none, quicker than an Effervescence: How wonderful has God fram'd us,

when

when we conſider the Structure of a Muſcle, and its Power! How obvious is it now to Gentlemen vers'd in Mechanical Learning, to perceive the Convenience there is in the Mechaniſm of a Muſcle for *Motion*? ſince by encreaſing the Number of Tubes, and leſſening their ſize, the Power to move them with, and the Space they take up under *Motion*, become, in a manner, inconſiderable.

As to the *Power of a Muſcle*, large and learned Diſcourſes have been Printed concerning it, but all agree in this, that the Force or Power of a Muſcle is owing to the weight of the Muſcle, and the Swiftneſs it is moved with, which is a ſtanding Law in Mechanicks, or it is a Product of the Quantity of Matter flowing into the Tubes of the Muſcle, and the Velocity of the influent Fluids in the ſame Perſon; for as *Motion* differs in various Perſons, and a Muſcle of the ſame Magnitude, of the ſame Denſity, and ſtock'd with Fluids agitated with equal Velocity, may not have, or produce the ſame Moment; therefore the *Motion* is in a *Ratio* compounded of the *Moles*, the Velocity and Elaſticity, of its Fibres. This is what was convenient to be ſaid of muſcular *Motion* in ſound Bodies: From whence it may be concluded, why a Muſcle

is

is moved voluntarily, what it is that makes its *Motion* ſtronger, why ſome Men of leſs ſize, and with leſs Blood and Spirits than others, can yet perform greater Feats of Activity and Strength than the former; and it will appear in the ſequel of this Diſcourſe, why *involuntary Motion* or *Convulſions* are attended with ſuch various and ſurprizing Symptoms, from the Ground-work I have here laid for their Explanation.

HAVING premis'd my Sentiments concerning Motion in general, I ſhall now deſcend to Particulars on the Motion of the ſolid Parts.

AS all Motion then *principally* depends on the Spirits, the Motion of them *principally* determines our muſcular Motion. For which Purpoſe, not only the Fibres ſwell with them, but freſh Supplies are brought from the Brain, and ſpinal Marrow by the *Nerves*: That this Supply is abſolutely Neceſſary, appears from hence, to wit, That the crural *Nerve* of any living Creature, being cut aſunder, or tied, the Motion of that Member ceaſes: And that the Fibres contain a good Portion of this Spirit in them, appears from hence, that they retain for a conſiderable time, after a Separation from the Poſſibility of a Supply, their contractive Power; for Example, if the Heart

be

be cut out from the Body, and ſo is depriv'd of the Poſſibility of having any Supply of Spirits from the Nerves, yet it will retain, for many Minutes, its pulſative Faculty; nay, if the Head and Heart of a Frog be taken away from it, yet the Creature will continue to jump, as uſual, for ſome ſmall ſpace of Time.

OCULAR Demonſtration in Diſſection ſhews us, that the Muſcles are contracted whilſt they are in motion, whilſt the moveable Part is drawn towards the immoveable, the Muſcle grows ſhorter, and the Part that is annexed, muſt of Neceſſity obey and follow, whence we ſee Weights, or whatever the Member holds to Mount.

WHEN the Muſcle ceaſes from Action, it returns to its former Poſture and Length; but whether this happens by a bare Relaxation of the Fibres of the Muſcle mov'd, or by an influx of Spirits and Blood into its Antagoniſt, is not ſo eaſy to determine, tho' it is of Uſe to conſider it well.

I MUST here make the Reader obſerve, that *Convulſions* and voluntary Motion differ in their Cauſe, ſince our Humours cauſe that by Irritation, which our Will does, in the latter, by its unſpeakable Power.

I SHALL lay aſide all other Conſiderations, and ſpeak my own Sentiments on *Convulſions.*

vulsions. I say therefore, that *Motion* is then made when the Spirits residing in the Fibres, are supply'd with a fresh influx from the Brain; and when this *Motion* is *regular*, the *Motion* of the Spirits must be calm; but when *irregular*, as it is in *Convulsions*, then that *Motion* is impetuous and furious.

I UNDERSTAND by *Convulsions*, a *Contraction of the Muscles against our Will*; and I divide *Convulsions* into *Universal* and *Particular*. *Universal Convulsions*, are Contractions over the whole Body; for Example, a *Falling Sickness* is an *Universal Convulsion*, because all the Parts of the Body are twisted and contracted, and made stiff.

Particular Convulsions are when only one Part is convulsed; for Example, the Head, the Eyes, the Face, the Jaws, the Mouth, the Eye-Lids, the *Lungs* (in choaking *Catarhs*, *Fits of the Mother*, and the Convulsive *Asthma*) the Heart (in Palpitations of it) the *Diaphragma*, in a Cough, *Hiccups*, and the *Hypochondriack* Disease; the *Guts* (in *Colicks* of any kind); the *Womb*, (in Fits of the *Spleen*); and such like: For, in these Diseases, it is manifest to all, that the aforesaid Parts are seized with *Convulsions*.

IT often happens that *Apoplexies*, *Palsies*, and other nervous Diseases, take their Beginnings from *Convulsions*. For, if we

consider that the influx of Spirits may, by a Contraction, which becomes permanent, be obstructed, it will be easy to conceive, that voluntary *Motion* will perish for the want of Spirits. And this, in particular, adds Weight to this Assertion, that it is often seen in the Course of Practice, that these Diseases are join'd together, and that they are often changed into one another; so that a *Palsie*, sometimes an *Apoplexy*, follow *Convulsions*, as well as *Convulsions* do often follow *Palsies*.

IT ought to be observ'd that *Convulsions* are sometimes continual, and expire in one Fit, and sometimes Intermitting or Periodical, and seize upon the Patients at certain distances of Time; to wit, as the Spirits are longer detain'd in their impetuous and confused *Motion*, or as they recruit after certain Intervals, and begin afresh their irregular *Motions*: And as the Fit sometimes passes over quietly enough, and at other times is continued for the Space of Hours, Days, nay Months, so very often they return at certain Hours, Days, or Seasons of the Year, sometime also they happen often in one Day, so that it is common to see Children have fifteen in one Day, thirty in Two, and three hundred in eight Days.

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In ſome Fits of *Convulſions*, the Perſons are ſo much depriv'd of Senſe, that they perceive no Smells how ſharp ſoever, nor even the prick of a Needle; and this happens moſtly where the *Convulſion* is Univerſal, and where the whole Body of the Spirits is diſorderly moved. In others, eſpecially particular ones, Pains violent enough happen, accompanied ſometimes with *Fevers* and *Ravings*: And what Wonder can it be, that Pains ſhould come upon ſo violent Contractions? Or that a Confuſion of the Spirits and Blood ſhould attend ſuch Torture?

How want of Appetite, Indigeſtion, Watchfulneſs, Difficulty of Breathing, Vomiting, and ſuch like Symptoms, do ſeize the Convulſed, I ſhall paſs over in ſilence; it is ſufficient here to take notice, that Swoonings, for the moſt part, follow a *Convulſion* Fit, or, at leaſt, a Faintneſs and Flatneſs of Spirits; ſo we commonly ſee theſe ſorts of Fits to bring on Stupidity, loſs of Memory, Melancholy, Madneſs, or Death.

It is now high time, I ſhould deſcend to ſpeak of the Cauſes of *Convulſions*. The Learned *Bellini* ſubſcribes to *Hippocrates*, and tells us, That *Convulſions* are cauſed either by *Repletion* or *Inanition*; that is, by Fulneſs or Emptineſs, and gives us good Reaſoning upon the Matter: He does not

deny but that Irritation is one Cauſe, becauſe he owns that the Blood is very often charg'd with Acrimonious Humours.

As to the immediate Cauſe of *Convulſions*, I think, and am ſure, that ſuch as believe or aſſert, that the irregular *Motion* of the Spirits is the only, or indeed the conſtant one, are groſly miſtaken; the Reaſons of this *Specifick*'s Operation, which is ſo ſucceſsful, would convince all Men of Senſe, were they to be given in to the contrary.

HOWEVER, daily Experience ſhews us, that *Convulſions* often take their Riſe from Anger, Fear, a ſudden Conſternation, Venery, and other Paſſions of the Mind; nay, even ſometimes from Fantaſtical Cauſes. Nor can that be wonder'd at, for how much Power there is in the Paſſions to move the Spirits, and how great Confuſions in our Animal Oeconomy are to be dreaded from them, is the Obſervation of every Day. Thus in Conſternation, for Example, the Spirits ſtand ſtill, our Blood Congeals, turns ſharp, and *Convulſions* often enſue; ſo in Anger, the Spirits are furiouſly moved, the Fibres are ſtretch'd, and it raiſes *Convulſions*. In Sadneſs, they are firſt ſtunn'd, then they ruſh into furious *Motions*, and raiſe *Convulſions*. Melancholick Perſons frequently become Epileptical. And there is ſo much the more

Reaſon

Reaſon to apprehend *Convulſions*, as the Perſons are the more tender and ſubject to Paſſions and Frights; hence it is that *Cowardly People* and *Children* are more ſubject to them, than ſuch as are advanced in Years, and are Stout and Couragious.

THE Humours of our Bodies which produce this Diſeaſe are numerous. If we take a view of the Qualities; ſurely Plethorick Subjects are not a little liable to this Malady from this Head; that if the Blood, ſwelling in the Veſſels of the Parts, be but a little agitated more than uſual, it raiſes *Convulſions* meerly from the Diſtention and Pain of the Fibres: Nor are there wanting Examples of ſuch, as have fallen into the moſt violent Fits from this Cauſe alone. And we remark daily, that numbneſs and *Convulſions* in the Hands and Feet, ariſe in us from this fulneſs of Humours in the Body, if ſuch ſit any time with their Feet a-croſs, or lean upon their Elbows; or alſo in Women with Child, the return of the Blood from the Feet is, in ſome meaſure, retarded from the very Situation of the *Embryo* in the Womb. And moreover, if we conſider the *Motion* of the Humours ſuppreſſed, it is very frequent to ſee *Convulſions* ariſe from a ſtoppage of Womens Monthly Purgations; their *Lochia*, and the *Hæmorrhoids*, or from

a Suppreſſion of Stools, Urine, or any ſuch like uſual Evacuations; for ſince theſe Diſorders are accompanied with ſome Pain, or diſorderly *Motion* of the Blood or Spirits, it plainly appears, how the Fibres and Spirits can be driven in this manner, into ſuch Convulſive *Motions*; nor is it obſcure, how from a retention of the Excrements, Wind, and from it a *Colick* and *Convulſions*, may take their Origin.

As to what concerns the Quality of the Humours, it is no Wonder, if in an impure and ſcorbutical Body, from an Acrimony and Impurity of the Blood, or alſo from a ſetling of an acrimonious *Serum*, the provoked Fibres are Stimulated and Irritated into Contractions more or leſs violent. Hence a *Strangury* ſprings from an Acrimony of the Urine, and a Suppreſſion of Urine from the *Ureters* and *Sphincter* of the Blader convuls'd. Hence from the green Choler of the Stomach, from a *Cholera*, from the *Pox*, it is matter of Obſervation that the moſt ſevere *Convulſions* do take their riſe. Hence do they alſo often happen from the *Meaſles*, *Small Pox*, or *Purples* lurking in the Body.

To this Head alſo belong Soure Things ſwallowed down, and acrimonious, putrid, poiſonous, or cauſtick Drugs; or alſo Diet,

which

which in like Manner, while they are mix'd with the Chyle, *Serum* and the Blood, excites by their Acrimony and Virulency, both the Stomach and the other Parts to ſuch ſpaſmodick *Motions*: Whence there are Examples without Number of ſuch, as by the exceſs of Wine, the indiſcriminate Uſe of *Spaw-Waters*, Hellebore, or Scammony, the unwary Eating of *Solanum* Berries, or Muſhrooms, have rais'd a choaking *Catarrh*, Hyſterick Fits, Madneſs, and Epilepſies.

THE ſame alſo is to be feared from ſuch Things, as are drawn up the Noſtrils, as for Example, mercurial, antimonial, or arſenical Fumes, for while theſe are mix'd with the Blood in the Lungs, they provoke *Convulſions* as well by the tumultuous *Motion* they imprint on the Spirits, as by the vellications and twitchings they communicate to the Fibres.

THERE is a like Reaſon for the Air's cauſing *Convulſions*: For as a *Cramp* in the Legs, which is call'd flatulent, riſes for the moſt part from Cold received by the Feet, ſo may the ſame happen in the other Parts; whence it has been obſerved that *Convulſive Motions* have been occaſion'd by a Perſon's lying along on the Ground, but then there is far the greateſt Danger from Cold, where there are Breakings out on the Skin, as in

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the *Itch*, *Scald-Heads*, the *Small Pox*, *Purples*, and ſuch like; or moreover when ſome Diſeaſe hath been driven out to the Extremities, ſuch as the *Gout* or *Eryſipelas*; for *Convulſions* frequently ſupervene, where Eruptions retreat from the External to the Internal Parts; and frequently it is obſerv'd, that an *Hiccup* ariſing from a *Gout*, ſtruck into the Blood, is Mortal.

If *Convulſions* ſpring from the ſolid Parts, the Fault is diſcoverable by our Senſes. And here in the firſt place, we muſt mention every external Injury done to the Parts, ſuch are Fractures, Luxations, Contuſions, Wounds, Burns, and ſuch like: To wit, that it is uſual with Fibres prejudic'd, to contract themſelves as ſoon as any thing moleſts them; which is manifeſt in Diſſections of living Creatures, when we prick a Muſcle. Whence it is no wonder, if Fibres are irritated into Convulſive Contractions, by reaſon of any External Violence or Pain; more eſpecially, if that Force or Prejudice happen in any membranous, tendinous or nervous Part; ſince *Nerves*, being prick'd, do raiſe *Convulſions*.

Hence it is often obſerv'd, that *Convulſions* are occaſion'd from a ſlight Wound made with a Pen-knife, or a Shiver of Glaſs, the prick of a Pin, or from cutting a Finger

ſlightly

ſlightly in paring the Nails. The like has been remark'd to have happen'd from bleeding where a Nerve or Tendon lie under a Vein, from a Blow with the Fiſt on the Temples, from Wounds on the Head near the Sutures, from the Wounded Diaphragm, and once from a Needle, which had wounded the Head into the Brain, and broke ſo ſhort off, that no ſign of Hurt appeared to the Eye, nor did the Cauſe of the *Convulſions* appear till Diſſection after Death, diſcovered it.

But *Convulſions* chiefly enſue, if Fragments of Bones (of the *Cranium* in particular) Arrows, Swords, or leaden Bullets, ſtick in the Parts: For as, beſides the Pain which accompanies the Wound, the Fibres are pricked and twitch'd continually, by Reaſon of the extraneous Bodies, it is very plain how the injured Part can be convuls'd, at that time, from the Pain which throws the Spirits into Tumults.

In like manner do *Convulſions* ſeize on ſuch as are infeſted with the *Stone*, a difficulty in Labour, Worms, or hard breeding of Teeth, becauſe, to wit, the Pain here does neceſſarily encreaſe, and irritate the Fibres; cauſes a hurry in the Spirits, and raiſes *Convulſions*; for whilſt the Stone is unequal and ragged, it offends and tears the Ureters; the Infant ſtretches the Orifice of the Womb;

the Worms conſtantly gnaw the Inteſtines; and the Teeth, being ſharp, prick the ſenſible Membrane in the Socket: Hence it is, that Children, about the time of breeding their Teeth, are very ſubject to *Convulſions*, for when the Teeth, eſpecially the Fore-Teeth, are upon the point of appearing, a *Fever* is rais'd, which is very often attended with *Convulſions*; and altho', at this time, *Children* may be ſtrong, and can better bear ſuch Diſorders, than when they are newly born; yet *Convulſions*, even at this time, raiſed by a Cauſe which will be of continuance, are dangerous, and often mortal.

IT cannot be a ſurprize to any conſiderate Perſon, that *Convulſions* ſhould ſucceed the violent Pain of breeding Teeth, ſince Pain makes a Commotion in the Blood, Humours and Spirits; and alſo, being very acute from the Tooth's pricking the Membrane that ſurrounds it; by this ſtretching and pricking, this Diſorder is communicated to the Brain, and the Spirits are hurried into the Parts with the utmoſt Violence; and hence *Epileptick* Fits follow. If, moreover, we conſider that the *Perioſteum* and interior Membrane of the Mouth make up the Gums along with a *Plexus* of Blood-veſſels; from whence it is, that the Gums are often inflam'd; and if we alſo reflect, that this *Perioſteum*

rioſteum is an expanſion of Tendons of the neighbouring Muſcles; it muſt follow, that when the Tooth grows in Bulk, and being ſhut up within a narrow compaſs of Bone, it will unmercifully diſtend and compreſs this Membrane on every ſide, ſo that the Blood being ſtopt in its Courſe of Circulation, brings on Inflammations, then are the ſubjacent Nerves compreſs'd, the Particles of the Juices are render'd ſharper, and what with Pain, what with Compreſſion, what with Irritation, what with Hurry and Confuſion rais'd in the Parts, the Blood, the Humours, and in the Spirits, it cannot be wonder'd at, if *Epilepſies* and Death ſhould ſo often enſue.

INTENSENESS of Pain, from Inflammations of the Bowels or elſewhere, is the Principal Cauſe of *Convulſions*; for that I may ſum up all in ſhort: *Whatſoever uſes in a ſignal manner to move the Spirits, to twitch the Fibres violently, or to raiſe vehement Pains, is ſufficient to raiſe* Convulſions; and it is the ſame thing whether the Spirits be put into a hurry from the Paſſions of the Mind, from the Acrimony of the Humours twitching the Fibres: Or, *Laſtly*, Whether from Pain being rais'd from any external Prejudice, for the Conſequences, (to wit, *Convulſions*,) will follow as often as the Cauſe is ſufficient to produce them.

THEREFORE it must be obſerv'd, *in* Convulſions *of* Children, *which I principally treat of in this little Book*, that whether the *Convulſions* in them ariſe from Worms, from Indigeſtions, from Green Choler, from Pain of their breeding their Teeth; from the retreat of the Red Gum; from the *Small Pox*, *Meaſles*, or *Scarlet*, from *Gripes*, from the curdling of their Milk in their Bowels, from the Pain of the *Stone*, or from any other Cauſe poſſible to be aſſign'd; yet ſtill as they depend *immediately upon the hurry of the Spirits, upon a Diſtortion of the Fibres, upon Corrugation of the Membranes and Tendons, and upon certain other Cauſes which I ſhall not be too particular in at preſent:* Their Cure muſt always be perform'd and compleated with Medicines which will fully anſwer the manifold immediate Cauſes, which are found out by Experience, certainly to produce them; and as I have had the good Fortune to communicate with a Perſon who liv'd in a Place where *Convulſions* were Epidemical, and who had thereby Opportunities to make many Trials; Providence has thrown into my Hands, by this Traveller's Favour, a Secret I now Publiſh, for the Advantage of Children and others, and the Comfort of their Parents; *Columbo*, the Chief City in the Iſle of *Ceylon*, over-

over-againſt *Coromandel* is the Place I ſpeak off, where grows *a Root truly Specifick againſt Convulſions*, and thus Providence generally orders it, that every Country produces a Remedy for the Diſeaſe which reigns moſt in that Place, and this *Specifick* is chiefly a Preparation of that Root.

As to the Cure of *Convulſions*, I ſhall here take the ordinary Courſe in ſpeaking of them, and ſhall obſerve that they are frequently taken off in the uſual way of curing by *Revulſions*: whether, if I miſtake not, may be referr'd *Hypocrates*'s Aphoriſm, to wit, *whoſoever are ſeized with Convulſions, if a Fever comes upon them, the Diſeaſe is cured*: For as ſoon as another and a different Motion and Bent is impreſs'd upon the Spirits, the former often ceaſes: and it has been obſerv'd that an *Epilepſy* has been cured in this manner by a Fright, and nothing is more uſual than to ſcare away the *Hiccup*, which is a *Convulſion* of the Muſcles of Inſpiration, and the Cartilage which covers the Wind-pipe, call'd the *Epiglottis*, as is evident to every one who conſiders this Matter ſeriouſly.

To this Topick belong Bliſters, Seatons, and Cauteries, to be put upon the Wriſt, Neck, or Head; for whilſt theſe do twitch the Skin and Fibres violently, and ſo ſollicit an Afflux of Spirits to the Part to which they

they are applied: It is uſual for the *Convulſions* to ceaſe by this Artifice, and they are of Uſe in *Particular Convulſions*.

NEITHER are the Fumes of Sulphur, of Spirit of Salt Armoniack made with Lime, or Hart's-horn, and ſuch like piercing Bodies held to the Noſe, or apoplectick or epileptick Water, put into the Mouth in the very Fit of an *Epilepſy*, of the choaking *Catarrh*, the convulſive *Aſthma*, and *Hyſterick Fit*, for any other Reaſon, than to Stimulate the Spirits, and invite them to flow in a different way from what they now take.

IF *Convulſions* ariſe from Anger, Frights, or other Paſſions of the Mind, Care muſt be taken to appeaſe them, and to uſe Rhetorick and Eloquence more than Phyſick; which is principally uſeful where *Convulſions* are occaſion'd from Humours offending in their Quantity or Quality.

IF the Blood is too hot and fiery, or if it abound too much, Bleeding (particularly if there be danger of Choaking) is to be perform'd immediately, without the leaſt Delay: It is no Matter from what Vein you draw Blood, ſince the ſame Blood is diſtributed thro' the whole Body, ſince you have nothing to do more than to abate the Quantity, and ſince that can be done in the Ancle, Hands, or Forehead, as well as the Arm; in the

vitious

vitious Quality of the Humours, if the Body be ſtuffed with impure and tainted Blood, or if raw and hurtful Things have been thrown down into the Stomach; Care ſhould be taken to bring them up again as ſoon as poſſible; which is moſt conveniently done by Vomits given and proportioned according to the Conſtitution, and alſo Purgatives of different ſtrengths. Hence *Mercurius vitæ*, Emetick Tartar, *Vinum Benedictum*, *Ipecacuana*, and ſuch like, are convenient; hence Hellebore, Scammony, Jalap, Rhubarb, Senna, and ſuch are to be given; but Diſcretion muſt be our Guide. As ſoon as the Stomach and Bowels are cleanſed, and the offending Matter is in good meaſure drained off, the remainder of impure Matter is to be corrected according to Art.

If the Crudity of the Stomach conſiſts in a viſcid Humour, Aromaticks and warm Drugs are much commended, ſuch are Cinamon, Nutmeg, Cardamoms, Galangal, Roſemary, Sage, Lavender, Marjoram, Rue, Pennyroyal, and the like; as alſo Tea, Coffee, Bath-water, and ſmooth Medicines to diſengage the Adheſion.

If it conſiſts in a Bilious Conſtitution, Spirits of Vitriol, of Salt; Juice of Citron, of Lemon, of Orange; Prunes, Sal prunellæ, *Tartar* vitriolated, and ſuch like, precipitate

picate the *Bile*, and often carry it gently downwards.

IF it conſiſts in an Acid Humour, all the volatile Salts and fix'd ones, all Chalibeats, all earthy and abſorbing Medicines are convenient, and abſolutely neceſſary.

THERE are *Specifick* Medicines againſt *Convulſions*, which are call'd, by the Phyſicians, *Antiſpaſmodicks*, and which they never forget to preſcribe in ſuch Caſes; and as each Perſon is fond of his own *Specifick* in his Practice, ſo it happens that we ſee one Phyſician, in every Bill in Convulſive Caſes, preſcribing *Miſletoe of the Oak*, whilſt another is often loading the Patient with *Powder* of *Gutteta*; a third with a Decoction of *Elks Hoof*; a fourth, with *Gaſcoin's Powder*; a fifth with *Caſtor*, or *Amber*; a ſixth with *Cinnabar's*; a ſeventh with *Valerian* Root; an eighth with *Pæony*; and each Man ſpeaks fine Things of his own Favourite *Specifick*, whilſt he artfully decrys his Brother's, with the exalted Praiſes of his *Noſtrum*; as to my own Specifick in this Diſeaſe in Children as well as in thoſe advanced in Years, I deſign to beſpeak its Favour without any *Encomium* raiſed by myſelf, I know the Publick, upon Trial, will find it their Intereſt to uſe it according to Direction, and common

common Gratitude will make them ſpeak well of it.

Whatever be the Cauſe of Convulſions, *theſe* Specificks *are never to be neglected; and they are always to be uſed at the ſame time, along with Medicines proper for the preſent Diſeaſe.* For Example, Suppoſe a Perſon is ill of the *Small Pox*, *Meaſles*, *Scarlet*, *Purples*, *Gout*, *Stoppage* of the *Monthly Purgations*, *Worms*, *Colicks*, *Breeding* of *Teeth*, or any other Diſeaſe; and is at the ſame time taken with Convulſions; they muſt conſider the Circumſtances, and *take Medicines proper for the other Diſeaſe they labour under, as well as Medicines* Specifick, *and proper for the* Convulſions alſo *at the ſame time*; for otherwiſe the *Convulſions* would deſtroy the Patient before the other Diſeaſe could be remedied: So that if a *Specifick Remedy* can be had, which may be given *at all times*, and *in all Circumſtances*, without hindring a Regular Cure for the other Diſeaſe: I ſay, and all muſt ſay it, that this is a valuable Remedy, which can ſave Life, and prevent the Dangerous Accidents of Convulſions, 'till the Diſeaſe which firſt gave riſe to them, can be taken off; and all this is fully experienc'd in this our *Specifick.*

I can ſafely add, That if the *Convulſions* take their Origin, and are occaſion'd from Wounds, Fractures, Contuſions, Pains, the Stone, Red-Gum, or any other Accident whatever, that this our *Specifick* will take off the *Convulſions* raiſed by theſe Accidents, if it be uſed according to the Directions given with the Medicine.

THERE are yet ſome External Remedies which Phyſicians do make uſe of in *Convulſions*, and ſuch are us'd in the Forms of Poultiſes, Epithems, Fomentations, Baths, Ointments, and ſuch like; the Materials are Diſcutients or Relaxants; ſuch are Roſemary, Marjoram, Pennyroyal, Mint, Agrimony, Flowers of Melilot, Chamomile, Elder, Poppies, Spirits of Roſemary, of Wine Camphorated; *Petroleum*; Oils of Amber, St. *John*'s Wort, of Lillies, Fats of Animals; all theſe cheriſh the Heat of the Parts, diſcuſs the grumous Blood, drive off the Cauſtick *Serum*, eaſe the Pain, and by relaxing the Fibres, allay the Diſtenſions of them, and conſeqnently, their *Convulſions*.

THUS, I hope, my Reader will believe I have acquitted myſelf of the Promiſe I gave them at the beginning of this ſmall Diſcourſe, to wit, that I have given them a plain Notion of the Diſeaſe in as few Words as it was poſſible for me to do, there remains nothing

thing further, than to give them alſo plain Directions how to uſe this *Specifick*, in all the various Circumſtances which may poſſibly occur, which will be given in Print along with the *Specifick*.

I MUST here take notice of a fantaſtical Colluſion, wherewith many good People are, of late, drawn and wheedl'd into an uſeleſs Expence, by an unheard of Artifice; I mean that Impoſture of a Necklace for Childrens Teeth: This *Empirick* ſets out upon the Honeſt and Honourable Mr. *Boyle*'s Footing, and becauſe this ſincere and worthy Gentleman explains the Manner how *Effluvia* may contribute to do Good or Harm, this vile Creature foiſts ſome Bones upon us, artfully turn'd into Beads; and with unparallel'd Aſſurance, affirms them uſeful to help Children to Breed their Teeth with Eaſe. I have heard a grave Divine complain of this groſs Impoſture. I have heard him declare, that an Advertiſement he read Printed by his Order, was, upon Enquiry, found to be an impudent Untruth, and that the Child ſaid to be recover'd, was dead, and had been ſo for ſome time before the Advertiſement appear'd, and that it never did receive any Advantage, only that this honeſt Author heard that ſuch an one had

purchaſed the Necklace, and believing his Name would raiſe its Credit, publiſh'd this baſe Untruth for the ſake of Gain.

I make no doubt, but that this is the Caſe in his daily Certificates; for he who has entred into the Secret of *ſinning for Gain*, will make no Scruple to repeat the Craft to *perpetuate his Profit*; and that I may confirm my Opinion, I will beg leave to make the following Suppoſitions, which I ſhall back with Reaſons, when more at Leiſure.

Firſt, Out of One Thouſand Children, one may breed its Teeth with Difficulty.

Secondly, One out of Four, whoſe Teeth are bred with Pain, may Die.

Thirdly, All Children who die, do not die of Teeth.

Fourthly, Many Children die before the Third or Fourth Month.

Fifthly, The Proportion of very young Children to the whole Inhabitants in Town, may be one Eighth of the whole.

Sixthly,

Sixthly, The Number of Inhabitants in Town may be nearly, or rather more than Double to Sir *William Petty*'s Computation.

Seventhly, If we compute 1600000 Souls, the Children of an Age liable to die of Teeth may be 200000.

Eighthly, Fifty Children will die yearly of Teeth from this Computation.

Ninthly, Then it follows, that out of 600 Children (who may be ſuppoſed to wear theſe Necklaces) not above one will have Occaſion for them.

Tenthly, It will alſo follow, that 599 will ſucced who wear them; or to ſay more properly, 599 will have no Occaſion to wear them.

Eleventhly, Yet the Death of one, out of 600 who had a real Occaſion for a proper Remedy, and who was not relieved by the Necklace, but was diverted from the Uſe of proper Advice, by confiding in this Impoſture, is therefore notwithſtanding, the loſs of one Subject to the King out of 600, that is, is Felony committed Fifty times in one

one Year, and deſerves Death by the Law ſo often.

I CAN aſſure my Readers, that I have made a favourable Conſtruction upon this incorrigible Miſcreant, which I will take a fit Opportunity to prove whenever it ſhall be deemed neceſſary; I am above treating him, upon any other Conſideration, than as an Enemy to the Commonwealth; and I muſt confeſs, it is to me ſome ſurprize, that ſuch a vile IMPOSTOR ſhould act ſuch a horrid Scene, triumph with the Spoils of HOMICIDE, and yet come off with Impunity, in a *Metropolis* where Juſtice and Learning flouriſh, and fall in with Encouragement and natural Inclination.

IF all the Directions are followed with a juſt Exactneſs, it will be found by wholſome Experience, that *none, or very few Infants will be ſeiz'd with CONVULSIONS*, becauſe the Parents and Nurſes will provide againſt them in time, by the Inſtructions to be given hereafter; and *that none, or very few of ſuch Children as are ſeiz'd with* Convulſions, *will die*; becauſe proper Methods are purſued to root them out.

How-

HOWEVER, it cannot be expected with any juſt Reaſon, that this *Specifick* ſhould ſucceed, if Parents do not make uſe of it, before their Children are ſpent and exhauſted; becauſe ſuch poor Infants are juſtly deem'd to be Dead, and to want nothing but the Funeral Ceremonies, and none can ſuppoſe I am for working Miracles.

*** Note, *This* Specifick *may be had of any of the Bookſellers mention'd in the Title Page, and alſo at the Places following*, (Viz.) *Mr.* Norris *at the Looking-Glaſs on* London Bridge, *Mrs.* Price *in* Token-Houſe-Yard, *back ſide of the* Royal Exchange; *and Mr.* Baker *over againſt* Hatton-Garden *in* Holbourn. *Seal'd up with Directions at large*, Price 5 *s. the* Bottle.

FINIS.

HOWEVER, it cannot be expected with any juſt Reaſon, that this Specific ſhould ſucceed, if Parents do not make uſe of it, before their Children are ſtone dead, expiſtulated; becauſe thoſe poor Infants are juſtly deem'd to be Dead, and to want nothing but the Funeral Ceremonies, and none can ſuppoſe I am for working Miracles.

* * Note, This Specifick may be had of any of the Perſons mention'd in the Title Page, and of the Place following, (Viz.) At Mr. Norris at the Looking-Glaſs on London Bridge, Mrs. Price in Tokenhouſe-Yard, next Door to the Royal Exchange; and Mr. Baker over againſt Hatton Garden in Holbourn. Seal'd up with Directions at Eight, Three & Five the Bottle.

FINIS.